

**REMARKS**

In the Office Action, the Examiner rejected claims 1-4, 6-9, 11-18, 39-42, and 44-46. Claims 5, 10, 19-21, and 43 were previously withdrawn. By this paper, Applicants amended claims 1-4, 6-9, 11-18, and 39-42 and cancelled claims 5, 10, 19-21, and 43. In addition, Applicants submit the enclosed Rule 131 Declaration of inventor David M. Mills and the associated Exhibits A and B pursuant to 37 C.F.R. § 1.131 to swear behind Friemel et al. (U.S. Pat. No. 6,537,220) and Barnes et al. (U.S. Pat. No. 6,676,602). Claims 1-4, 6-9, 11-18, 39-42, and 44-46 remain pending in the present application. In view of the foregoing evidence and the following remarks, Applicants respectfully submit that the pending claims are patentably distinct from the prior art and are in condition for allowance.

**Claim Rejections**

In the Office Action, the Examiner rejected claims 1, 6-8, and 16 under 35 U.S.C. § 102(e) as anticipated by Friemel or under 35 U.S.C. § 103(a) as obvious over Friemel. The Examiner rejected claims 1, 16, 18, 42, and 45 under 35 U.S.C. § 103(a) as obvious over Barnes alone or in view of Ladabaum et al. (U.S. Pub. No. 2004/0000847); Angelsen et al. (U.S. Pub. No. 2005/0043627); Finsterwald et al. (U.S. Pat. No. 5,423,220); or Mault (U.S. Pub. No. 2002/0103435). The Examiner rejected claims 1, 16, and 18 under 35 U.S.C. § 103(a) as obvious over Barnes in view of Ustuner et al. (U.S. Pat. No. 6,746,402). The Examiner rejected claims 6-8, 42, and 45 under 35 U.S.C. § 103(a) as obvious over Barnes in view of Friemel. The Examiner rejected claims 2-4, 9, and 46 under 35 U.S.C. § 103(a) as obvious over Friemel alone or as obvious over Barnes in view of Friemel and Ishrak et al. (U.S. Pat. No. 5,677,491). The Examiner rejected claims 2-4, 9, and 46 under 35 U.S.C. § 103(a) as obvious over Friemel alone or as obvious over Barnes in view of Friemel and Hanafy (U.S. Pat. No. 6,258,034). The Examiner rejected claims 13-14 under 35 U.S.C. § 103(a) as obvious over Friemel in view of Ishrak and Eaton et al. (U.S. Pat. No. 5,876,345) or as obvious over Barnes in view of Friemel, Ishrak, and Eaton. The Examiner rejected claim 15 under 35 U.S.C. § 103(a) as obvious over Friemel in view of Ishrak and Snow et al. (U.S. Pat. No. 6,749,554) or as obvious over Barnes in

view of Friemel, Ishrak, and Snow. The Examiner rejected claim 17 under 35 U.S.C. § 103(a) as obvious over Friemel in view of Robinson (U.S. Pat. No. 6,659,954) or as obvious over Barnes in view of Friemel and Robinson. The Examiner rejected claim 18 under 35 U.S.C. § 103(a) as obvious over Friemel in view of Barnes. The Examiner rejected claims 39-40 and 44 under 35 U.S.C. § 103(a) as obvious over Barnes in view of Friemel and further in view of Chiao et al. (U.S. Pat. No. 5,882,309) or Mason et al. (U.S. Pat. No. 5,931,785). The Examiner rejected claim 41 under 35 U.S.C. § 103(a) as obvious over Barnes in view of Friemel, further in view of Chiao or Mason, and further in view of Robinson. Applicants respectfully assert that the pending claims are patentable over the cited reference in view of the following remarks.

**Removal of References Pursuant to 37 C.F.R. § 1.131**

In view of the earlier date of the invention of the subject matter disclosed and claimed in the present application, Applicants have chosen to remove Friemel and Barnes pursuant to 37 C.F.R. § 1.131. Under Rule 131, Applicants may overcome a rejection by filing an appropriate declaration that establishes invention of the claimed subject matter by Applicants prior to the effective date of the references relied upon in the rejection. *See* 37 C.F.R. § 1.131. In summary, prior invention may be established by evidencing a reduction to practice of the subject matter of the claimed invention in the United States, a NAFTA country, or a WTO member country prior to the effective date of the cited reference. *See id.*

On the faces of the documents, the apparent effective date of Friemel is August 31, 2001, and the apparent effective date of Barnes is July 25, 2002. Accordingly, Applicants submit the enclosed Rule 131 Declaration of David M. Mills, an inventor of record, to demonstrate that the invention disclosed and claimed in the present application was conceived and actually reduced to practice in the United States prior to the effective dates of Friemel and Barnes.

Specifically, in paragraph 3 of the attached Rule 131 Declaration, the applicant/inventor declares that the subject matter disclosed and claimed in the above-referenced application was conceived at least prior to August 31, 2001. In support of this 131 Declaration, a redacted printout of the draft disclosure letter prepared prior to August 31, 2001, is attached hereto as Exhibit A.

Applicants further submit that Exhibit A in its entirety, along with the corresponding Rule 131 Declaration, is sufficient to demonstrate conception of the claimed subject matter at least prior to August 31, 2001. This draft disclosure letter describes an ultrasonic probe having a curved lens attached to an array of micromachined ultrasonic transducers. *See* Exhibit A. Furthermore, the diagrams included in the draft disclosure letter show a MUT cell with multiple regions. *See id.* The diagrams also show several types of curved lenses. *See id.* Applicants submit that Exhibit A in its entirety, along with the corresponding Rule 131 Declaration, is sufficient to demonstrate conception of the claimed subject matter prior to the August 31, 2001, effective date of Friemel and the July 25, 2002, effective date of Barnes. *See* Rule 131 Declaration of David M. Mills, Paragraph 3; Exhibit A.

Furthermore, as indicated by paragraph 4 of the attached Rule 131 Declaration, the applicant/inventor declares that the invention disclosed and claimed in the present application was actually reduced to practice at least prior to August 31, 2001. In support of this 131 Declaration, a redacted printout of a study prepared prior to August 31, 2001, having a photograph of an embodiment of the claimed subject matter, is attached hereto as Exhibit B. Applicants submit that Exhibit B in its entirety, along with the corresponding Rule 131 Declaration, is sufficient to demonstrate actual reduction to practice of the claimed subject matter prior to August 31, 2001. More specifically, the applicant/inventor declares that a curved lens 10 was successfully attached to an array of MUT cells 12. *See* Rule 131 Declaration, Paragraph 4; Exhibit B.

In summary, Applicants submit that Exhibits A and B and the corresponding Rule 131 Declaration are sufficient evidence to demonstrate conception and subsequent actual reduction to practice of the claimed subject matter in the United States before the apparent effective date of August 31, 2001, of Friemel and before the apparent effective date of July 25, 2002, of Barnes.

In view of the evidence discussed above, Applicants respectfully request the Examiner remove Friemel and Barnes from consideration. With Friemel and Barnes removed from consideration, all rejections based on either Friemel or Barnes are moot, because none of the secondary references taken alone or in combination teach or suggest the features recited in the

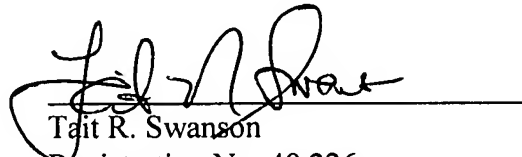
present claims. As all of the rejections are based on either one or both of these references, Applicants respectfully request allowance of pending claims 1-4, 6-9, 11-18, 39-42, and 44-46.

**Conclusion**

The Applicants respectfully submit that all pending claims should be in condition for allowance. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

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Tait R. Swanson  
Registration No. 48,226  
FLETCHER YODER  
P.O. Box 692289  
Houston, TX 77269-2289  
(281) 970-4545